DOCUMENT RESUME

ED 225 073 CG 016 421

AUTHOR Mersmann, Harry J.
TITLE Social Hypothesis Testing: Another Look.
PUB DATE Apr 82
NOTE 14p.; Paper presented at the Annual Meeting of the Western Psychological Association (62nd, Sacramento, CA, April 7-11, 1982).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Students; *Evaluation Criteria; *Evaluation Methods; Higher Education; Interpersonal Relationship; *Peer Evaluation; *Personality Traits; *Predictor Variables; *Social Cognition
IDENTIFIERS *Social Hypothesis Testing

ABSTRACT

Social hypothesis testing is the process by which individuals make judgments about what other people do, think, or say. In an attempt to replicate Snyder and Swann's (1978) research and to examine the relationship of certain personality traits to different hypothesis testing strategies, 86 college students made selections from a list of questions to determine if another student was an extrovert and completed four personality scales. Results showed that information about the percentage of extroverts in the group was not used in determining which types of questions to ask. None of the personality variables proved to be a good predictor of the type of hypothesis testing strategy chosen by the subjects. Subjects chose a significantly different type of hypothesis testing strategy from that used by subjects in Snyder and Swann's research. (JAC)

SOCIAL HYPOTHESIS TESTING: ANOTHER LOOK

Harry J. Mersmann
Reed College

Paper presented at the Annual Meeting of the Western Psychological Association,, Sacramento, CA, April 8-11, 1982.

SOCIAL HYPOTHESIS TESTING: ANOTHER LOOK

Harry J. Mersmann

Reed College

Social hypothesis testing is the process by which individuals make judgements about what other people do, think or say. This process is used when we meet and form first impressions of new acquaintances (Is this guy just another angry rugby player?, Does she drink as much as her friends?), when we attempt to answer new questions about old friends (Although this person is a good friend, would she make a good housemate? Will he be able to write this article in time?) and when we re-evaluate our present relationships (Has he always been a misogynist? Did she always have a crush on me?). Each of these questions (along with countless others that arise in the course of day to day living) can be seen as a hypothesis which can be tested by collecting verbal or behavioral evidence. (See Snyder (in press) for an excellent review of the implications and applications of social hypothesis testing.)

According to Snyder and Swann (1978,b) individuals have three available hypothesis testing strategies which they can adopt in collecting verbal and behavioral evidence: Confirmatory--in which evidence is sought which would tend to confirm the hypothesis. Disconfirmatory--in which evidence is sought which would tend to disconfirm the hypothesis. Balanced--in which both confirmatory and disconfirmatory evidence is

sought. For example, if I were trying to determine whether someone is an extravert and had the chance to engage in a conversation with the person, I would create the hypothesis: This person is an extravert. I could then attempt to confirm that hypothesis by asking her questions about when she is outgoing and sociable or I could attempt to disconfirm the hypothesis by asking her questions about when she is shy and lonely or finally, I could use a balanced hypothesis testing strategy and ask both types of questions.

Although investigations of social hypothesis testing are a recent development in experimental psychology, they have all reached the same conclusion: People overwhelmingly use confirmatory hypothesis testing strategies. Snyder and Swann (1978,b) found that people asked about twice as many extravert as introvert questions when testing an extravert hypothesis and similarly when testing as introvert hypothesis asked about twice as many introvert as extravert questions. Subjects could not be dissuaded from their use of confirmatory strategies by monetary rewards for accuracy or by making it more or less likely that they would be interviewing an introvert or an extravert.

Similar support for the almost exclusive use of confirmatory strategies can be found when subjects test hypotheses about themselves (Forer, 1949; Ulrich, Stachnik and Stainton, 1963) about the attractiveness of another (Snyder, Tanke and Berscheid, 1977), about the learning capability of another (Swann and Snyder, 1980), and the hostility of another (Snyder and Swann, 1978,a). See Snyder (in press) for an excellent review of the

implications and applications of social hypothesis testing.

The purpose of the research reported here was twofold: first, to perform a slightly revised replication of Snyder and Swann's (1978,b) landmark research and second, to determine whether certain personality variables are related to different hypothesis testing strategies.

Method

Participants.

Participants in this investigation were 86 undergraduates at Reed College (49 females and 37 males).

Procedure.

Session One: Groups of 10 to 15 participants sat in a room and completed the following personality scales: the Flexibility Subscale of the CPI, Rotter's (1966) Locus of Control scale, the Hase Experimental Introversion/Extraversion Subscale of the CPI, and Nowicki and Strickland's (1974) Locus of Control Scale for Adults. Upon completion an appointment was made for a second session during the following week.

Session Two: Participants were seated in private cubicles and then provided with the following information:

> The person you are going to interview is a sophomore, a psychology major and lives on campus. From a recent study I did I know that very few of the members of this person's dorm are extraverts. That is, of the 30 people in their dorm, three of them are extraverts. Your task is to find our if this person is one of the very few extraverts in their dorm.
>
> To help you in this task, the following

> prototypical extravert personality profile (as derived from a number of personality tests) is provided: Extraverts are typically outgoing, sociable, energetic, confident, talkative, and enthusiastic. Generally confident and relaxed in social situations, this type of person rarely has trouble making conversation with others. This type of person makes friends quickly and easily and is usually able to make a favorable impression on others. This type of person is usually warm and friendly.
>
> In order to limit the amount of time spent in the interview I am requesting that you select twelve questions that you want to ask from the attached page. Please circle the number of each question you decide to ask. Feel free to change the wording of any question if you can do so without changing its meaning. When you have chosen your twelve questions please let me know and I shall escort you to the interviewing room.

Those participants who received this information were in the 10% group because 3 out of a possible 30 dorm members were known to be extraverts. The 50% group was told that:

> That is, of the 30 people in the dorm, 15 of them are extraverts. Your task is to find out if this person is one of the many extraverts in the dorm.

The 90% group was told that:

> That is, of the 30 people in the dorm 27 of them are extraverts. Your task is to find out if this person is one of the many extraverts in the dorm.

The control group was told that:

> The person you are going to interview is a sophomore, a psychology major and lives on campus. Your task is to find out if this person is an extravert.

Each participant then selected 12 out of a list of 26 questions. The questions had previously been sorted into 11

extravert questions ("What would you do if you wanted to liven up things at a party?", "In what situations are you most talkative?") 10 introvert questions ("What factors make it hard for you to really open up to people?", "What kind of events make you feel like being alone?") and 5 neutral questions ("What kind of charities do you like to contribute to?", What are your career goals?"). Upon selecting their 12 questions, participants were informed that the interview would not take place after all and they were then thoroughly debriefed.

Results

An analysis of variance between the 10%, 50%, 90% and control groups showed no significant difference across groups in the number of extraverted questions asked, $F(3,82)=0.254$. There was also no significant difference in the number of introverted questions asked, $F(3,82)=0.773$, or in the number of neutral questions asked, $F(3,82)=0.55$. There were no sex differences. With regards to the scores of the personality tests, there were also no significant group or sex differences.

Table 1 shows the results of simple regression analysis between personality test scores and the number of extraverted questions asked. Again, a notable lack of significant results is apparent. The type of hypothesis testing cannot be predicted by any of these four personality variables.

The only significant results obtained in this investigation are those which are borne out by a comparison between my results and those of Snyder and Swann (1978,b). This comparison is

offered in Table 2.

Discussion

The subjects in this experiment, like those of Snyder and Swann (1978,b) did not incorporate the information regarding the 10%, 50% and 90% chances of interviewing an extravert. One might assume that those in the 90% group would ask more extraverted questions than those in the 10% group, but this was not the case. Did subjects understand the information presented? Apparently so. As part of the debriefing process, subjects were asked to rank on a 1-10 scale how likely it was that they would have interviewed an extravert. The mean ranking for the 10% group was below that of the 90% group. The ordering was significant, G=60.06. Thus, even though subjects understood the information provided, it did not influence their hypothesis testing strategies.

It should also be noted again that none of the four personality variables proved to be a predictor of the type of hypothesis testing strategy chosen by the subjects. Personality may indeed influence hypothesis testing, but these four indicators did not demonstrate such influence in this particular research.

The most interesting aspect of this investigation however, was the discovery of a subject pool which does not confine itself to confirmatory strategies. As shown in Table 2, the subjects in this investigation choose a significantly different type of hypothesis testing strategy from the strategy used by the

subjects in Snyder and Swann's (1978,b) research. As far as I know, this is the first group of hypothesis testers to chose a relatively balanced strategy.

Although the subjects in this research approximated a balanced strategy, the number of extraverted and introverted questions which they selected were not equal. This can be accounted for in two ways: 1) Subjects were asked to determine whether someone was an extravert. It is likely, therefore, that they might choose more extraverted questions. 2) The set of interview questions was designed by University of Minnesota students. There may be differences between the two subject pools in what they consider to be extraverted questions. For example "What activities do you really excel in?" and "What are some typical things you like to debate?" may not be considered extraverted questions by all subjects. In any case, my sample consisted of relatively balanced hypothesis testers.

What is it that makes these subjects different from those who have dominated the literature with reports of confirmatory hypothesis testing? There are three possible answers: First, The experimental situation is often a situation which is perceived by the subjects as one over which they lack control. Also, subjects might see the experimenter/professor as a wise authority figure who would never lie. These two conditions might combine to cause the subjects to over-accept information which is given to them during the experiment. Research suggests that such is indeed the case (Berscheid, Graziano, Monson & Dermer, 1976; Miller, Norman & Wright, 1978; Pittman & Pittman, 1980; Ross, Lepper & Hubbard,

1975; Swann, Stephenson & Pittman, 1981). It is possible that because of lack of control in the experimental situation, subjects in many of the reported confirmatory studies assumed that the extravert profile/hypothesis presented to them was true and thus had no reason not to confirm it. My subjects, however, because of the small size of the college community reacted to me more as an acquaintance than as a distant authority figure. They may, therefore, been more relaxed and thus have responded more "naturally" and honestly.

Second, although flexibility did not correlate with the testing strategies chosen, these subjects attained a higher mean score (15) on the flexibility subscale of the CPI than the average college mean of 12 (Megargee, 1972). Because of this heightened flexibility, these subjects may have found it easier to reject the given extravert hypothesis and thus easier to adopt non-confirmatory strategies.

Third, although confirmatory hypothesis testing is being accepted by most psychologists as a newly discovered universal effect and is cited in many recent books (Anderson, 1980; Snyder, in press; Snyder & Gangestad, in press), it is possible that confirmatory hypothesis testing is not as universal a phenomenon as has been supposed. Clearly it would be premature to embrace confirmatory hypothesis testing strategy as the "norm". This investigation demonstrates the need for further replications of Snyder's basic hypothesis testing research.

At least it's worth another look.

TABLE I

Correlations Between Personality Scale Scores and Number of Extraverted Questions Chosen for Different Groups

Measure	FX	RO	IE	NW
Group				
Control. . . .	-.145	+.175	-.265	+.083
10%.	+.151	-.201	+.251	-.219
50%.	-.099	-.037	+.312	+.096
90%.	-.265	-.309	+.014	-.358

TABLE II

Comparison of Types of Questions
Asked Between Mersmann and Snyder and Swann (1978, b)

	Mersmann (n = 86)	Snyder & Swann (1978, b) Investigation Two (n = 20)
# of extraverted questions asked		
M.	5.64	7.25
SD	1.60	2.24
Z-score.		3.04, $p < .005$
# of introverted questions asked		
M.	4.27	2.80
SD	1.73	2.31
Z-score.		2.68, $p < .005$
# of neutral questions asked		
M.	2.09	1.95
SD	1.09	0.89
Z-score.		.61, NS

REFERENCES

Anderson J.R. Cognitive psychology and its implications. San Francisco: W.H. Freeman, 1980.

Berscheid, E., Graziano, W., Monson, T., & Dermer, M. Outcome dependency: Attention, attribution and attraction. Journal of Personality and Social Psychology, 1976, 34, 978-989.

Forer, B. The fallacy of personal validation: A classroom demonstration of gullibility. Journal of Abnormal and Social Psychology, 1949, 44, 118-123.

Megargee, E.I. The California psychology inventory handbook. San Francisco: Jossey-Bass, 1972.

Miller, D.T., Norman, S.A. & Wright, E. Distortion in person perception as a consequence of the need for effective control. Journal of Personality and Social Psychology, 1978, 36, 598-607.

Pittman, T.S. & Pittman, N.L. Deprivation of control and the attribution process. Journal of Personality and Social Psychology, 1980, 34, 377-389.

Ross, L., Lepper, M.R., & Hubbard, M. Perseverance in self-perception and social perception: Biased attributional processes in the debriefing paradigm. Journal of Personality and Social Psychology, 1975, 32, 880-892.

Snyder, M. Seek, and ye shall find: Testing hypotheses about other people. To appear in E.T. Higgins, C.P. Herman, & M.P. Zanna (Eds). Social Cognition: The Ontario symposium on personality and social psychology. Hillsdale, N.J.: Erlbaum, in press.

Snyder, M. & Gangestad, S. Hypothesis testing procedures. To appear in, J.H. Harvey, W.J. Iches, & R.G. Kidd (Eds.) New directions in attribution research (Volume 3). Hillsdale, N.J.: Erlbaum, in press.

Snyder, M. & Swann, W.B. Behavioral confirmation in social interaction: From social perception to social reality. Journal of Experimental Social Psychology, 1978, 14, 148-162. (a)

Snyder, M. & Swann, W.B. Hypothesis testing processes in social interaction. Journal of Personality and Social Psychology, 1978, 36, 1202-1212. (b)

Snyder, M., Tanke, E., & Berscheid, E. Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. Journal of Personality and Social Psychology, 1977, 35, 656-666.

Swann, W.B., Jr., & Snyder, M. On translating beliefs into action: Theories of ability and their application in an instructional setting. Journal of Personality and Social Psychology, 1980, 38, 879-888.

Swann, W.B., Jr., Stephenson, B. & Pittman, T.S. Curiosity and control: On the determinants of the search for social knowledge. Journal of Personality and Social Psychology, 1981, 40, 635-642.

Ulrich, R.E., Stachnik, T.J., & Stainton, N.B. Student acceptance of generalized personality interpretations. Psychological Reports, 1963, 13, 831-834.